

Latin America and the Social Contract:

Patterns of Social Spending and Taxation

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Abstract

This paper presents an incidence analysis of both social spending and taxation for seven Latin American countries, the United Kingdom, and the United States. The analysis shows that Latin American countries are headed de facto toward a minimalist welfare state similar to the one in the United States, rather than toward a stronger, European-like welfare state. Specifically, both in Latin America and in the United States, social spending remains fairly flat across income quintiles. On the taxation side, high income inequality causes the rich to bear most of the taxation burden. This causes a

vicious cycle where the rich oppose the expansion of the welfare state (as they bear most of its burden without receiving much back), which in turn maintains long-term inequalities. The recent increased socioeconomic instability in many Latin American countries shows nonetheless a real need for a stronger welfare state, which, if unanswered, may degenerate into short-term and unsustainable policies. The case of Chile suggests that a way out from this apparent dead end can be found, as elites may be willing to raise their contribution to social spending if this can lead to a more stable social contract.

This paper—a product of the Latin American & Caribbean Poverty Reduction and Economic Management Division, Poverty Department—is part of a larger effort in the department to understand income inequality in Latin America. Policy Research Working Papers are also posted on the Web at <http://econ.worldbank.org>. The author may be contacted at jrigolini@worldbank.org.

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**LATIN AMERICA AND THE SOCIAL CONTRACT:
PATTERNS OF SOCIAL SPENDING AND TAXATION**

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1. INTRODUCTION

In the last 15 years, Latin America has experienced large improvements in social spending. In all but one country, social spending rose from an average of 9.8 percent of GDP in 1990, to 12.3 in 2003 (CEPAL, 2006). Increased spending is also reflected in increased taxation, which rose from an average of 12.2 percent in 1990, to 16.3 percent in 2003.

But who is benefiting from higher social spending? And where is the Latin American welfare state headed: towards a minimalist, liberal, US-style social state, or towards a more comprehensive, social-democratic, European-style one? Finally, will Latin America be able to continue financing the expansion of its welfare state? Studies that review existing incidence analyses on social spending in Latin America (CEPAL, 2006; López, 2006) find social spending to be fairly flat across income quintiles, achieving little redistribution. These studies, however, look at the spending side, while redistribution is an equilibrium outcome of both spending and taxation; that is, if everybody would receive an amount equal to their contributions there would be *de facto* no redistribution.

In this paper we present an incidence analysis of both social spending and taxation for seven Latin American countries, the United Kingdom, and the United States. Consistent with previous studies, we do find absolute levels of social spending in Latin America to be fairly flat across income quintiles – and for some countries, to be even regressive. This contrasts the much more progressive pattern of social spending of the United Kingdom (which itself spends less on the poor than most European countries), and brings Latin American welfare states closer to the US model, where social spending also remains fairly flat across income quintiles. The structure of taxation in Latin America is also very similar to the one of the United States: high income inequality constrains Latin American countries to tax mostly the rich, a pattern – though to a lesser extent – also observed in the United States, while the United Kingdom can afford to tax more its middle class.

Our comparison of social spending and taxation therefore strongly points that Latin American countries are headed towards a minimalist welfare state similar to the one of the United States, rather than towards a stronger, European-like one. The high contributions of the rich to tax revenues are a serious obstacle to the further expansion of the welfare state, as the rich may feel to contribute excessively to the welfare state, without receiving much back. The roots of this bottleneck clearly lay in the high levels of income inequality pervading Latin America: although as a proportion of their income the rich do not necessarily contribute more than in Europe, because of high income inequality their contributions to tax revenues must be much higher.

The recent increased socioeconomic instability in many Latin American countries shows nonetheless a real need for a stronger welfare state, which, if unanswered, may degenerate into short term and unsustainable populist policies. Actions need therefore to be taken, and elites have to choose between losing power and assets to strongly left-leaning governments, or to engage into the development of more inclusive social contracts. We believe that a way out from this apparent dead end can be found. The case

of Chile in the 1980s shows that elites may be willing to increase their contributions to the welfare state if this can lead to a more stable social contract. And to the extent that increased social spending could be financed through closing inefficient tax loopholes and breaks that are currently benefiting the elites, and would improve equality of opportunities for the poor, an expansion of the welfare state would be even beneficial for economic performance.

The paper is organized as follows. Section 2 presents an overview of social spending and taxation in Latin America. Section 3 discusses the data and the methodology. Section 4 presents the results of the incidence analysis, and Section 5 concludes.

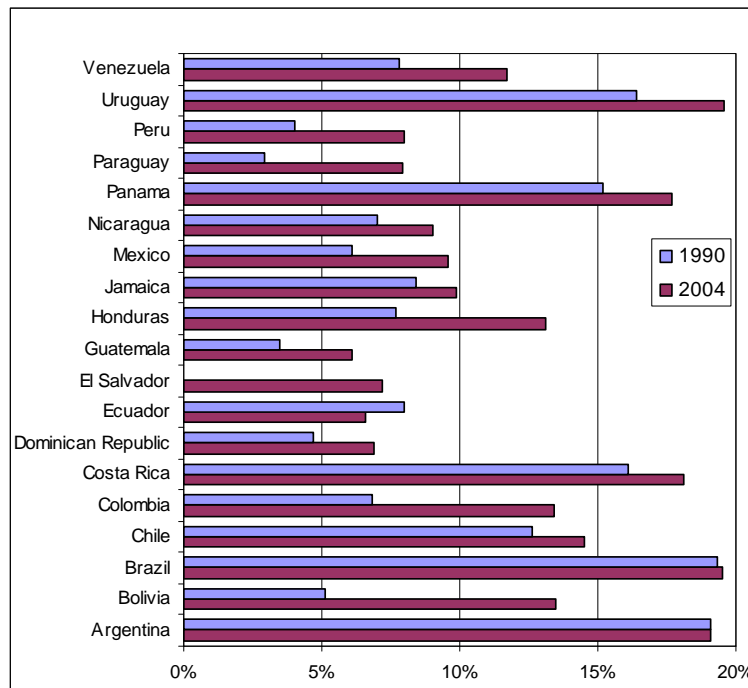
2. OVERVIEW OF SOCIAL SPENDING AND TAXATION IN LATIN AMERICA

This paper defines *social spending* as all public resources spent on education, health (including family-planning, reproductive health care and food programs), clean water, basic sanitary services, housing subsidies, direct transfers to the poor, social assistance, and social security (see also Ganuza, León and Sauma, 1999). It makes the deliberate choice of excluding pensions from the main analysis, as their intertemporal nature, and the mix of pay-as-you-go and fully funded systems, makes it difficult to assess their redistributive nature. Nonetheless, as a robustness measure it extends the incidence analysis to pensions for a subset of countries, and shows that considering pensions does not affect the findings (see Section 4.4).

Per capita social spending differs considerably among Latin American countries: it varies from 6.1 percent of GDP in Guatemala to 19.6 percent of GDP in Uruguay (see Figure 1). Nonetheless, the 1990s experienced a generalized increasing trend in social spending (see Figure 1 and Molina, 2003), so that by 2002-2003 the region's per capita social spending reached US\$ 610, a 39% increase from the 1990-1991 level of US\$ 440 (CEPAL, 2006). According to CEPAL (2006), "The efforts made for almost 15 years to bring about a sustainable rise in public spending on social sectors is among the most outstanding events in the recent development of the great majority of Latin American countries."

Despite positive long-term trends, differences in countries' levels of social spending have not been reduced. The region's poorest countries still spend much less than the richest countries, and there has been no clear trend towards convergence (CEPAL, 2006). Social spending in the region has also demonstrated a strong pro-cyclical behavior, being the lowest when and where it has been mostly needed (see, among others, Molina 2003, Mostajo 2000, CEPAL 2001, and Machinea, 2005).

Figure 1: Social spending as a share of GDP.

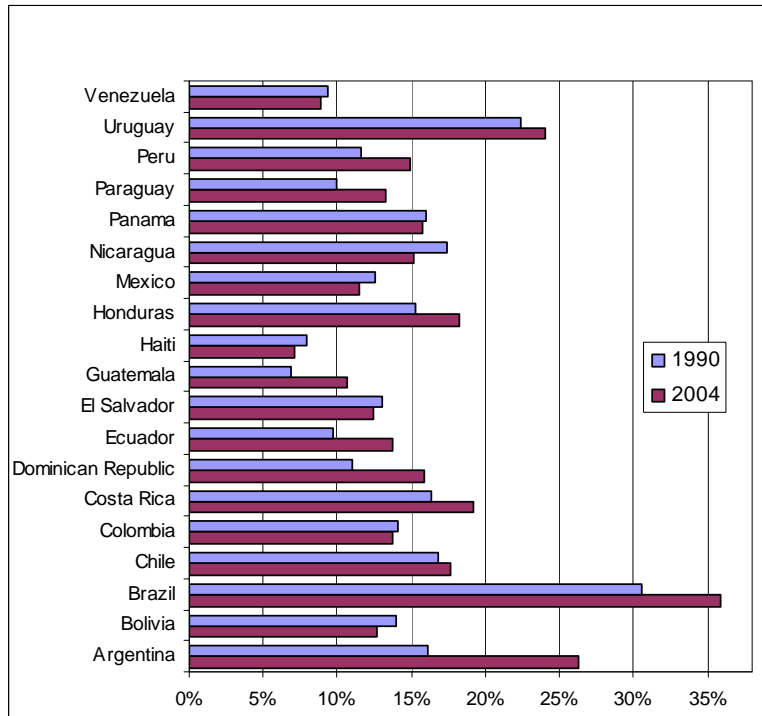


When data for 2004 were missing, data from 2001-2003 have been used.
Source: CEPAL (2006).

In full similarity, tax revenues also vary significantly across countries: from 7 percent of GDP in Haiti (and 9 percent in Venezuela), to 36 percent of GDP in Brazil (see Figure 2). Tax revenues as well increased significantly during the 1990's: excluding social security contributions, on average they rose by 15 percent between 1990 and 2004 (see Tanzi, 2000, Gomez Sabaini, 2005, and Figure 2).

On average, countries that had relatively high taxes at the end of the 1970s experienced a faster growth in their tax revenues than those with lower levels, so that they remained above the regional average in the 1990s and 2000s (Bird, 2003). Thus, while countries like Brazil, Uruguay, and Argentina continue to have tax revenues around 25% of GDP, countries like Guatemala, Haiti, Ecuador or Venezuela keep having tax revenues around 10 percent of GDP (Gomez Sabaini, 2005). In looking at tax revenues, however, it must be taken into account that countries with revenues from publicly owned commodities do not need to raise as much revenue as countries with no commodities. This is the case of Venezuela, Mexico, Ecuador, and a few other countries which show relatively low average tax revenues (Tanzi, 2000).

Figure 2: Tax revenues as a share of GDP.



Source: Gomez Sabaini (2005).

When looking at joint patterns of social spending and taxation, we can only observe a moderate relationship between social spending, and the level of taxation: although no country finds itself completely off the diagonal in Figure 3 (i.e., high spending and low taxation, or vice-versa), most countries do not exhibit a strong link between revenues and social spending. This may be due to some countries having different priorities than social spending; another likely cause is that commodities inflate government revenues in many countries (Tanzi, 2000).

Figure 3: Patterns of social spending and taxation.

	Low Spending	Medium Spending	High Spending
Low Taxation	Guatemala	Mexico Venezuela Paraguay	
Medium Taxation	Dominican Republic El Salvador Honduras Nicaragua	Peru	Chile Colombia
High Taxation			Argentina Brazil Uruguay

Source: Lindert *et al.* (2006) for social spending; Gomez Sabaini (2006) for taxation.

3. DATA AND METHODOLOGY

In this paper we complement existing studies of the Latin American welfare states in two ways. First, we look at both social spending and taxation; second, we attempt to separate pensions from spending in education, health, and direct transfers. Specifically, most existing comparative studies on the Latin American welfare state focus attention on Social Security spending (Huber, 1999; Barrientos, 2004; Filgueira, 2004 and 2005; Gough *et al.*, 2004), as coverage is easily estimated. These studies – in addition to ignore relevant redistributive categories such as spending in education – present serious caveats. For instance, they tend to look at aggregate characteristics such as coverage, but they do not estimate how much each income quintile specifically receives. Moreover, by including pensions in the analysis, they cannot distinguish between people and government's contributions, as pay-as-you-go pensions (the most common form of pensions in Latin America) present a complex redistribution pattern with cross subsidies across people *and* generations.² To cope with the difficulty of estimating the redistributive impact of pensions we shall therefore conduct the incidence analysis in two steps: first without pensions, and subsequently show for a subset of countries that including pensions does not affect our results. Observe, also, that a new wave of studies has begun looking at disaggregated social spending (see, for instance, Lindert *et al.*, 2006). Nonetheless, these studies do not look at the taxation component, which – we shall see – in Latin America plays a major role in determining net levels of redistribution.

The countries we study are Argentina, Bolivia, Colombia, Honduras, Mexico, Nicaragua, and Peru for Latin America, and the United Kingdom and the United States for the OECD. Due to intensive efforts required to obtain estimates of disaggregated social spending and taxation, in what follows we complete own calculations with existing secondary sources (see the Appendix for more details). Although we do not cover all countries, the existing sample covers the different Latin American welfare systems. Filgueira (2004 and 2005), based on *how much is spent* (i.e. the amount of resources devoted to the social system), and on *how it is spent* (i.e. the degree of coverage, its sectoral distribution and the levels of services given), finds three types of welfare states in Latin America: a welfare state with universal or near universal coverage, and basic health services to all or almost all (Argentina, Chile, Uruguay, and 1980s Costa Rica); a dual welfare state, where the population is covered by social services and income maintenance schemes in a stratified manner, with a very large part of the population remaining outside the state protection system (Brazil, Mexico, Venezuela, Panama, and Colombia); and exclusionary welfare states, where a only small privileged part of the population has access to social protection (El Salvador, Honduras, Bolivia, Ecuador, and Guatemala; see also Hernandez, 2006). Our sample covers all three typologies.

Next, we summarize the methodology we have used to compute social spending and taxation by income quintile. Although in some cases data are from secondary sources (see

² For instance, to identify the redistributive component of pension systems Lindert *et al.* (2006) had to rely on simulation exercises.

the Appendix), great care has been taken to guarantee that all studies in consideration have used a similar methodology as ours.

The first step consisted of gathering data on social spending and government revenues at the national level, disaggregated by spending and revenue category (i.e., spending on primary education and public universal health, or revenues from income and VAT taxes). These data usually stem from the countries' National Accounts. We also had to collect information on spending and taxation rules, such as who is eligible for a specific direct transfer, the progressiveness of income taxes, and the level of value-added taxes for each consumption good. In doing this exercise, one of the difficulties was to determine the share of social spending and taxation that is actually received or paid by households. Generally, identifying taxes paid by households required more assumptions than those needed to identify the elements of social spending aimed at the households, although the treatment of administrative and overhead expenses made the spending side of the equation as challenging as the tax side.

In a second step, we allocated social spending and taxation among households. Each tax or social spending item was allocated according to household members' utilization of particular programs and to assumptions about the incidence of specific programs or taxes. Finally, households have been ranked according to their income level and then split into income quintiles.

Although the methodology represents one of the best ways to study the incidence of social spending and taxation, it still presents some caveats. Dilnot *et al.* (1990), for instance, point out the potential inconsistency in assuming "both perfectly inelastic commodity demands (in order to attribute all indirect taxes to consumption), and perfectly inelastic factor supplies (in order to attribute all income taxes to labor)." Similarly, authors who use general equilibrium models to estimate tax and spending incidence point out that our methodology fails to account for the consumer surplus from public goods and for the marginal welfare costs of taxation. Also, assuming the unit cost of provision to be equal to the value of the benefit to the households, failure to capture some important second order effects on welfare, and ignoring behavioral responses are some of the limitations of incidence studies highlighted by Van de Walle (1996). However, despite these caveats, other, more sophisticated methodologies would not necessarily lead to better results: as Van de Walle (1996) states, it would be incorrect to "automatically assume that more complicated models will produce better or fundamentally different policy advice."

In fact, we refrain from estimating tax shifting parameters or any measure of dead weight losses because results from these estimations are very sensitive to parameter specifications, so that it would not be possible to estimate these parameters and measures consistently for all the countries analyzed in this study (see, among others, Selden and Wasylenko, 1999; Wolff, Zacharias and Caner, 2004; and Harris, 1999). Moreover, as previously stated, our aim is simpler, as we only aspire to determine the broad distributional patterns of actual tax payments and social spending across income groups.

In the paper we have given great attention to comparability issues. Although a variety of studies look at disaggregated social spending in Latin America (see, for instance, CEPAL, 2006), in addition to our own computations we only have selected sources that in the same study estimated disaggregated spending in education, health, and direct transfers. We have also only considered countries for which both social spending and taxation could be retrieved (or computed by ourselves), and which adjusted all figures to National Account data. The latter requirement excludes studies of relevant countries, but adds in comparability and ease data interpretation. In particular, studies that do not adjust their estimates to National Account data rely on respondents' answers not only for participation to welfare programs (or hospital and school attendance), but also for amounts spent or received, leading to clear underreporting biases, especially among the poorest and richest income quintiles. Moreover, by adjusting the estimates to National Account data we also mitigate the problem of tax evasion, as we allocate *actual* collected taxes across income quintiles. To be sure, due to asymmetric tax evasion, underreporting of income, and the tendency of household surveys to miss the richest households, our income tax allocation is likely to be biased; nonetheless, we shall see that in most Latin American countries income taxes represent a small proportion of total taxes, and that, most importantly, as average income of the richest quintile is likely to be underestimated, our concluding results would be actually *strengthened* by correct reporting of income (see Section 4 for more details).

In contrast with existing studies (see, for instance, Engel *et al.*, 1998, CEPAL, 2006, and Perry *et al.*, 2006), we also refrain from using households' income other than to compute income quintiles and allocate income taxes. As previously stated, household income suffers from serious underreporting problems. While this only marginally affects the income quintile classification (because the richest households would be anyway classified into the richest quintile), it can severely affect the estimation of how much each quintile pays and receives as a proportion of its income.³ Although this self-imposed constraint will affect our analytical capability, such as the possibility to quantify the redistributive power of taxes and transfers by computing pre- and post Gini coefficients, we believe that presenting only the *absolute* amounts redistributed strongly diminishes comparability issues.

Finally, in what follows we look at social spending and taxes received and paid by each individual *divided by the average GDP per capita in the country*. The latter represents a normalization that corrects for the "spending capability" of each country, allowing a better comparison between countries.

There is, however, one issue that we fail to address, which we do believe affects the redistributive impact of social spending: differential public service quality, especially between urban and rural areas. By considering the quality of public service provision, it is likely that some public services, such as education and water access, would show more regressive patterns.

³ For instance, most sources used in the CEPAL (2006) study of disaggregated social spending adjust taxes and transfers to National Account data, but not households' income, leading to bizarre findings such as social spending being a disproportionate amount of people's income.

4. PATTERNS OF SPENDING AND TAXATION IN LATIN AMERICA

Income redistribution – either measured in absolute levels, or relative to people’s income – is affected by two factors: transfers (i.e., *social spending*), and taxes. In looking only at social spending, existing comparative studies miss therefore half of the picture, as if each individual would receive back from the government the same amount paid in taxes, there would be *de facto* no redistribution. In this section we look therefore at the *joint* impact of social spending and taxation: we shall first analyze them separately, and then look at net patterns.

4.1 SOCIAL SPENDING

Figure 4 summarizes social spending (that is, education, public health, and direct transfers) by income quintile. Average social spending in our Latin American sample corresponds to 10 percent of GDP per capita, which remains significantly lower than social spending in the United Kingdom (14 percent), but similar to social spending in the United States (11 percent). There are, however, significant differences across countries: Peru, for instance, spends 6 percent of GDP per capita for each individual, while Argentina, Bolivia, and Honduras spend twice as much (12 percent).

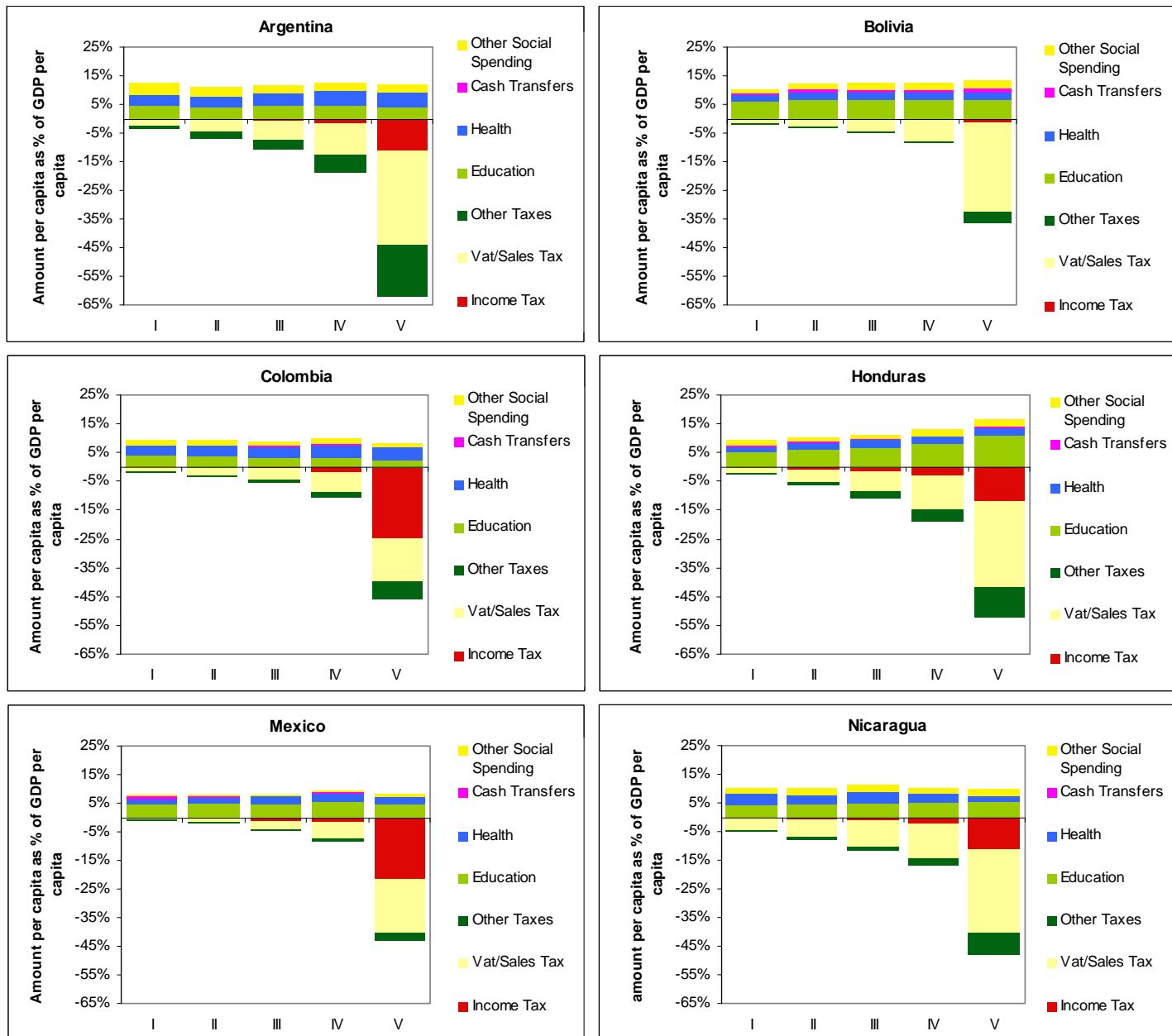
Despite significant differences in average levels, in terms of the pro-poor behavior of social spending we can observe a strong contrast between Latin America, and the United Kingdom.⁴ In Latin America, social spending is slightly biased in favor of the rich: on average, social spending to the poorest quintile corresponds to 92 percent of social spending to the richest quintile, against 233 percent for the United Kingdom. Latin America seems therefore to be closer to the United States model, which has a ratio of 107 percent.

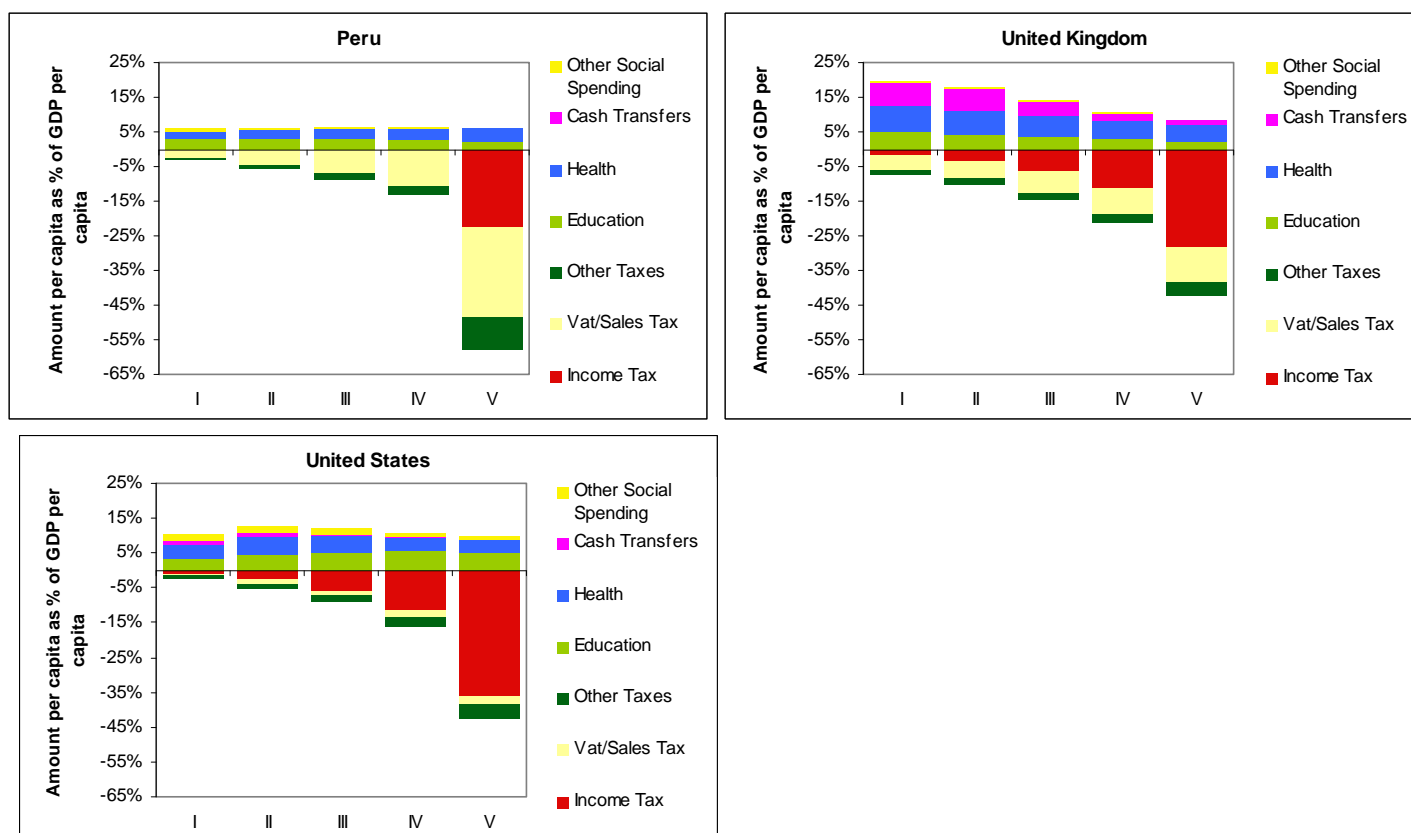
Although variation is quite large (in Honduras – the least pro-poor spending State in our sample – the poorest quintile receives 57 percent of what the richest quintile receives, while in Colombia, the ratio climbs to 108 percent), no country displays higher pro-poor spending behavior than the United States, and all countries remain far away from the progressiveness of the European Welfare States.

As a consequence of lower levels of spending, and lower progressiveness, social spending for the poorest income quintile is also much lower in Latin America: it averages 9.9 percent of GDP per capita in Latin America, which is a figure very similar to the one for the United States (10.4 percent), but much lower than what the United Kingdom spends for its poorest income quintile (20.3 percent).

⁴ To ease the presentation, in what follows we shall refer to the sample of Latin American countries as “Latin America.”

Figure 4: Social spending and taxation by income quintile, as a percentage of GDP per capita.





Health

In Latin America, per capita health expenditures to the poorest quintile vary from 1.9 percent of GDP per capita in Mexico and Peru, to 4.7 percent in Argentina, and average 3 percent. However, the country that spends most on health for the poor – Argentina – still remains well below the level of the United Kingdom (7.6 percent), while it spends similar amounts than the United States (4.6 percent).

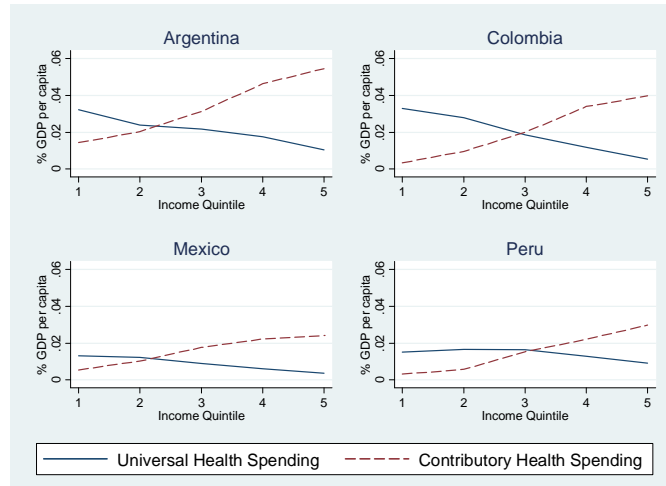
Notice that – aside from Nicaragua – public health spending is quite pro-rich: on average, the government spends on the poorest income quintile 70 percent of what it spends on the richest quintile. In addition, many Latin American countries have a two-tier health system (usually linked to people's work status) which contrasts the universal health system of the United Kingdom. Accordingly, in Latin America universal health spending declines with people's income, while contributory health spending – which still has a redistributive component, but only among participants – strongly increases (see Figure 5). This dual health system is more reminiscent of the US health system than of the universal European ones.

Education

Most countries in our Latin American sample invest in the education of the poor comparable amounts than the United Kingdom or the United States: the Latin American

average of per capita public education spending for the poorest quintile corresponds to 4.7 percent of GDP per capita, against 5.3 percent in the United Kingdom, and 3.1 percent in the United States.⁵

Figure 5: Universal vs. contributory health spending.



In terms of progressiveness of spending, however, large variations can be observed: Honduras, for instance, spends in the education of the poorest quintile only 46 percent of what it spends for the richest quintile, while the percentage raises to 168 percent in Colombia. Besides Honduras, however, all countries show a higher level of progressiveness than the United States, which spends on the poorest income quintile only 59 percent than what it spends on the richest one, but no country shows higher progressiveness than the United Kingdom (228 percent).

The composition of public education spending also varies a lot by income quintile. Data from CEPAL (2006) show that in Latin America, more than 50 percent of primary education spending is spent on the poorest two income quintiles, while more than 70 percent of public spending on higher education goes to the two richest income quintiles. Although we do not have data on public education spending for the United Kingdom or the United States at this level of disaggregation, it is likely that the composition of education spending is more similar across income quintiles.

Direct transfers

⁵ As in Latin America there are more children in the poorest quintile than in the United States or in the United Kingdom, public education expenditure *per child* would however show slightly lower figures.

Two other relevant differences make the structure of social spending in Latin America more similar to the one of the United States than to the one of the United Kingdom. First, despite recent positive trends from large scale programs such as *Oportunidades* in Mexico or *Bolsa Escola* in Brazil, in Latin America cash transfers as a mean to transfer funds to the poor still represent a low proportion of social spending. While in the United Kingdom per capita cash transfers to the poorest income quintile amount to 6.9 percent of GDP per capita, the average in our Latin American sample equals less than one percent, with the country spending the most – Mexico – transferring only 1.1 percent to the poor.⁶ Thus, under this aspect as well the structure of social spending is more similar to the one of the United States (where cash transfers to the poorest income quintile amount to one percent of GDP per capita), than to the one of the European welfare states.

Second, Latin American countries rely much more on subsidies – such as gas or food subsidies – than the United Kingdom. Indeed, most of social spending that we denote as “Other Transfers” in Figure 4 consists of subsidies. In our Latin American sample, this type of social spending averages 1.9 percent of GDP, a similar amount than in the United States, and four times more than in the United Kingdom. In addition to the obvious distortions that subsidies create, Figure 4 clearly shows that cash transfers can be more easily targeted to the poorest income quintile than subsidies, which tend to benefit equally the whole population – or, in case of gas subsidies, even to disproportionately benefit the richest income quintiles.

4.2 TAXATION

A comprehensive analysis of pro-poor spending behavior also ought to look at taxation, as if each individual would receive back from the government the exact amount that it has contributed, there would be *de facto* no redistribution. In this section we analyze therefore how much each income quintile contributes to total taxes collected by the government: in the next section we shall then look jointly at the structure of social spending and taxation.

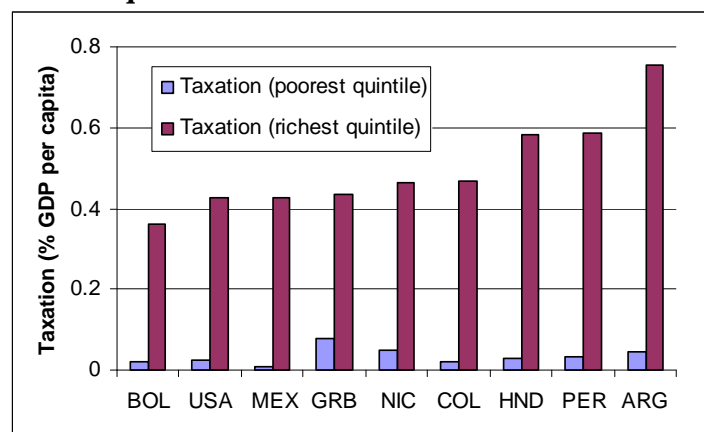
We divide taxation into three categories: income taxes, value-added taxes, and all other types of taxes, which include property taxes, import taxes, and specific taxes such as contributions to public health systems, and taxes on vehicles (for more details, see the Appendix). Notice that, by adjusting taxation to National Accounts data, we do estimate (with some margin of error) what the income quintiles *de facto* contribute to total taxation. In particular, adjusting to National Accounts is likely to reduce the bias caused by two important factors: *informality* and *tax evasion*. As in Latin America the richest income quintile pays on average 82 percent of total income taxes, most tax evasion is

⁶ Unfortunately, we were not able to include all cash transfers programs in Latin America: for instance, programs such as *Familias en Acción* in Colombia, or the *Red de Protección Social* in Nicaragua, have not been considered because the household surveys in these countries did not allow the identification of the beneficiaries of these programs. However, considering that these programs are much smaller in magnitude than *Oportunidades* in Mexico or *Bolsa Escola* in Brazil, it is likely that they would not change the fact that cash transfers to the poor remain much higher in the United Kingdom.

already accounted by the fact that total income taxes collected by the government – which approximately match income taxes paid by the richest quintile – are lower. Similarly, as the poorest quintile pays on average only 1.2 percent of total income taxes, the bias from informal activity is also likely to be very small.

Figure 6 summarizes taxation by income quintile. On average, in Latin America the tax categories we consider generate revenues equivalent to 15 percent of GDP: therefore, although lower, revenues are close to the ones in the UK (19 percent) and in the US (16 percent). To be sure, actual government revenues are higher, especially in the United Kingdom (36 percent) and in the United States (25 percent) where other forms of taxation that cannot be captured by household surveys or cannot be easily attributed to specific income quintiles – such as corporate taxes – generate large government revenues. In Latin America, our estimates also miss all government revenues from natural resources exploitation, and in all countries they do not consider contributions to pension systems. Nonetheless, to the extent that the taxes we consider are the ones that most directly affect individuals, they will be the ones that will mostly influence redistributive politics.

Figure 6: Taxation of the richest and poorest income quintiles.



Overall, in Latin America, the share of taxation paid by the richest income quintile averages 61 percent. This remains significantly higher than the share paid by the richest quintile in the United Kingdom (43 percent), and similar to what the richest quintile contributes in the United States (58 percent). In contrast, the poorest income quintile brings to the government much lower revenues: as Figure 6 shows, on average the richest income quintile pays 22 times more taxes than the poorest quintile. This remains close to the ratio of the United States (19 times), and much higher than the one of the United Kingdom (6 times).

There are however large variations in taxing behavior: in Nicaragua, for instance, the richest quintile pays in taxes an amount equal to 10 times what the poorest quintile pays,

while Mexico the ratio raises to 44 times. Nonetheless, no Latin American country displays as low ratios as in the United Kingdom.

We can also observe strong differences in the composition of taxes between Latin America on the one hand, and the United Kingdom and the United States on the other hand. While in the United Kingdom and in the United States the largest contribution to tax collection is represented by income taxes, in Latin America value-added taxes and other goods and services-related taxes play a much more prominent role. For instance, on average income taxes account for 54 percent of revenues from all taxes we consider in the United Kingdom, and for 75 percent in the United States, while they only represent 22 percent of the revenues in Latin America (with a maximum of 43 percent in Mexico). In contrast, value-added taxes account for 61 percent of the revenues from all taxes we consider in Latin America, against 34 percent in the United Kingdom, and 11 percent in the United States.

This different composition of taxation is *per se* not surprising, as the composition of taxation has been shown to evolve with the level of development (see, for instance, Das-Gupta and Mookherjee, 1998). In fact, even within Latin America differences in the tax composition are noticeable: for instance, Bolivia relies mostly on value-added taxes, while Colombia (a wealthier country) relies more on income taxes.

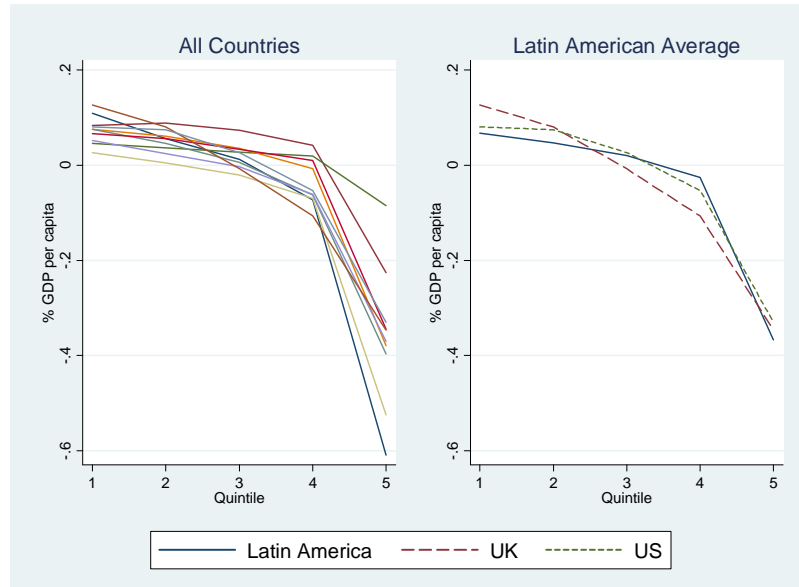
In Latin America, however, value-added taxes and other goods and services-related taxes pose a much greater burden on the richest quintile than in the United Kingdom or in the United States. While in our Latin American sample the richest quintile contributes, on average, 53 percent of total value-added taxes collected, the contribution is only of 31 percent in the United Kingdom and in the United States. Given the likely high capacity of the rich to evade income taxes in Latin America, taxing the rich through other forms of taxation may nonetheless be an optimal strategy.

4.3 NET TRANSFERS

Countries display a pro-poor spending behavior only if the net sum of transfers received minus taxes paid leans towards the poorest quintiles, as if everybody would receive an amount equal to their contributions, there would be *de facto* no redistribution. In what follows we compare therefore net transfers (that is, transfers received, minus taxes paid) in Latin America with net transfers in the United Kingdom and in the United States. As stated in the methodology section, due to problems in measuring accurately per capita income for each quintile, we shall limit the analysis to *absolute* amounts redistributed. Thus, we should be aware that – due to high income inequality – Latin American countries would display a lower pro-poor spending behavior if net transfers would be measured as a proportion of people's income. In what follows, we shall therefore not judge the *capability* of the richest quintiles to contribute more to government spending (which is more likely to relate to relative taxation), but rather their *willingness*, which is more likely to relate to how much, in net terms, they contribute to the welfare state.

Figure 7 shows that *in all countries, net transfers display a pro-poor behavior*: in other words, redistribution occurs. It also shows that in net terms Latin America spends less on the poorest quintile, but at the same time taxes more the rich. There are, however, significant differences in the levels of redistribution. In Bolivia – the least pro-poor spending state in our sample – the richest income quintile is taxed 2.7 times more than what the poorest quintile receives. In contrast, in Peru the ratio climbs to 19.5. The analysis of joint spending and taxation also suggests that, while in the United Kingdom redistribution occurs both through taxation and social spending (measured by strong pro-poor social spending *and* taxation), in Latin America and in the United States redistribution occurs mostly through a stronger taxation of the rich (see Figure 4).

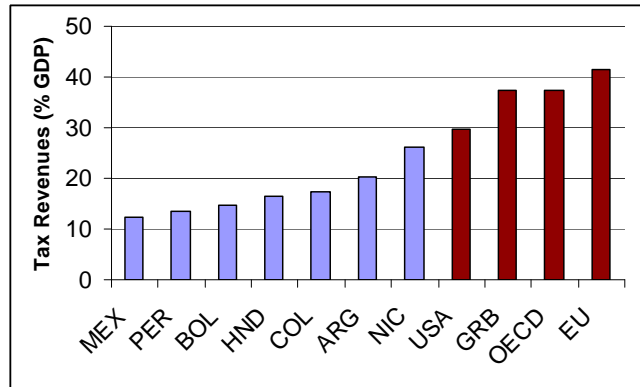
Figure 7: Net transfers as a percentage of GDP per capita.



Is it possible to tax further the rich?

It is difficult to provide a conclusive answer. On the one hand, in Latin America tax revenues are significantly lower than in OECD countries or in the EU (see Figure 8); on the other hand, however, the richest income quintile contributes already a much larger share of taxation than in OECD or EU countries (see Figure 9).

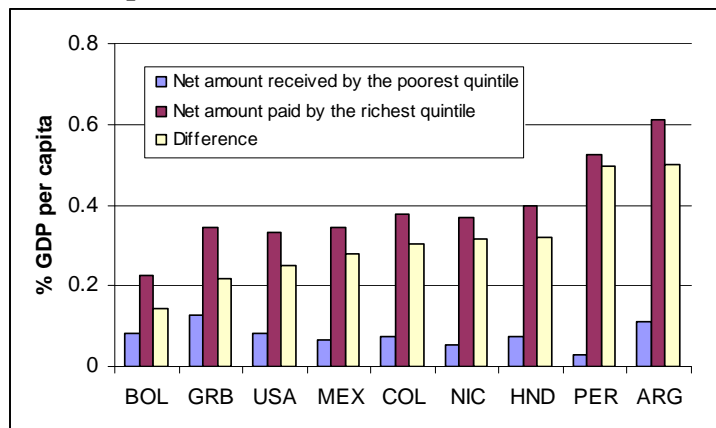
Figure 8: Tax revenues.



Source: OECD (2002) and Martner and Tromben (2004).

The roots of this apparently incongruous behavior reside to a great extent in the high levels of income inequality pervading all over Latin America. As Latin American countries are much more unequal than OECD and EU countries, to support similar levels of spending the richest income quintile must be more heavily taxed, at least in absolute terms. To be sure, in *relative* terms (i.e., as a percentage of its income) the richest quintile does not necessarily contribute more than in OECD or EU countries, and therefore it should potentially be possible to increase taxation. Nonetheless, as in Latin America the rich contribute to government revenue a much higher share than in OECD or EU countries (see Figure 6), increasing their contributions even further may impose some strain on the social contract, as the rich may feel to excessively contribute to a welfare state that gives them little back. This argument may acquire increased relevance in light of the poor quality of public services in Latin America, and of recent research finding that willingness to pay taxes is strongly related to the ability of the government to provide efficient public services (see, for instance, Becker *et al.*, 1987, Brosio *et al.*, 2002, and Hanousek and Palda, 2004).

Figure 9: Net transfers of the richest and poorest income quintiles.

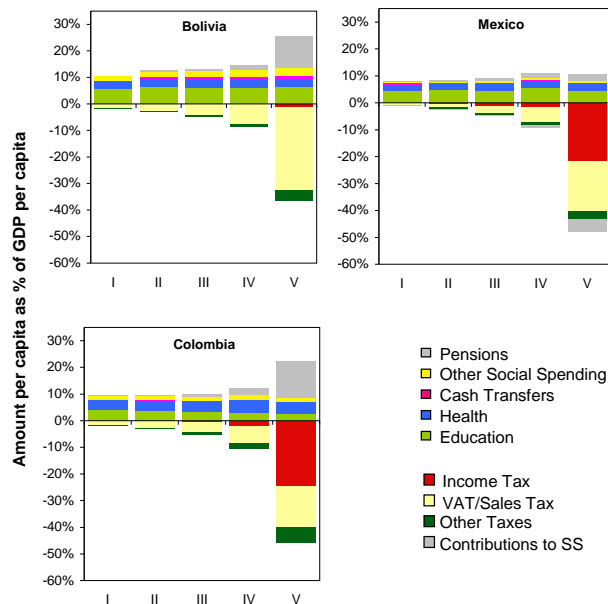


4.4 PENSIONS

The previous analysis does not consider pensions, which in Latin America tend to be strongly biased in favor of the rich. The reason we have kept pensions out of the analysis is their inter-temporal dimension, which makes it difficult – if not impossible – to assess their redistributive impact. In particular, despite the tendency of moving towards fully-funded systems, most Latin America pension systems still have large pay-as-you-go components (see Gill *et al.*, 2004). While it is relatively simple to look at how much fully-funded systems redistribute because funds managed are linked to individual accounts, it is very difficult to assess the redistributive nature of pay-as-you-go systems, as redistribution occurs not only across income quintiles, but also over time.

Despite all these caveats, however, there is strong evidence suggesting that in Latin America pensions are often biased towards the richest income quintile, and that coverage remains low among the poor (see Gill *et al.*, 2004). These facts are reflected in our data. Figure 10 shows the extent through which net transfers vary when total social security contributions and total pensions paid are considered.⁷ It shows that recipients (and contributors) of pensions are overwhelmingly from the richest quintile, and, with the exception of Mexico, which recently switched towards a largely fully-funded system, the rich overwhelmingly benefit from pensions.

Figure 10: Net transfers with pensions.



⁷ Figure 10 shows yearly contributions and payments by income quintiles, and therefore, does not consider the fact that some of the contributions correspond to provisions for the future, and some pensions paid stem from provisions from the past.

The pro-rich behavior of pensions may appear to contradict, at first sight, our argument that in Latin America the rich contribute most to the welfare state without receiving much back, but it does not do so. Pension contributions are in addition to general taxation, and payments at retirement are limited to who contributed, and somewhat proportional to past contributions. Pension systems are therefore to a large extent separated from the rest of the welfare state, and their pro-rich behavior may not reduce the strain caused by the high contributions of the rich to a welfare state that gives them little back.

5. LATIN AMERICA AND THE SOCIAL CONTRACT: WHERE IS IT HEADED?

Despite recent positive trends, social spending remains below the levels of the European welfare states, but is approaching the levels of spending of the United States. In fact, several clues lead to believe that Latin American welfare states are headed towards a minimalist, liberal, US-style welfare state rather than towards a more comprehensive, social-democratic, European-style one. First, the structure of social spending and taxation follows closely the one of the United States. Social spending for the poorest income quintile, for instance, averages 9.9 percent of GDP per capita, a figure very similar to the one of the United States (10.4 percent), and much lower than the one of the United Kingdom (20.3 percent). Second, in full similarity with the United States, social spending tends to be flat across income quintiles, while in the United Kingdom – as well as in many European welfare states – social spending is strongly progressive. Finally, on the taxation side, the share of taxation paid by the richest income quintile averages 61 percent, which is close to what the richest quintile contributes in the United States (58 percent), and way more than what the richest quintile contributes in the United Kingdom (43 percent).

The high contributions of the rich to tax revenues are a serious obstacle to the further expansion of the welfare state, and its roots clearly lay in the high levels of income inequality pervading Latin America. Although as a proportion of their income the rich do not necessarily contribute more than in Europe, because of high income inequality their contributions to tax revenues must be much higher than in Europe – and in some countries, higher than in the United States. Latin American countries seem therefore to be trapped in a vicious cycle where high income inequality prevents increasing tax revenues, which in turn prevents the state to act as a provider of equality of opportunities, and which in the long run keeps inequalities high. How to induce the rich to contribute even more remains a serious challenge.

We believe, however, that a way out from this apparent dead end can be found. Improving equality of opportunities through social spending may have a beneficial effect on economic performance (World Bank, 2006b), hence, if the welfare state is gradually expanded, the poor may begin to contribute higher shares to it. Moreover, due to their strong ties with the government, elites in Latin America still benefit from loopholes and tax breaks hurting the efficiency of tax collection, and economic performance as a whole (see, for instance, Guerrero *et al.*, 2006, for the case of Mexico). Reducing elite capture of the state by closing tax loopholes and inefficient tax breaks, while, at the same time,

improving social spending could therefore lead to an improved social contract that could be beneficial for economic performance.

Actions need to be taken soon. The recent increased socioeconomic instability in many Latin American countries shows a real need for redistribution, and that redistribution will happen anyway. Elites have therefore to choose between losing power and assets to strongly left-leaning governments (such as the ones in Bolivia, Ecuador, or Venezuela), or to engage into the development of more inclusive social contracts.

A leading example of change in the social contract leading to increased social spending is Chile, seventeen years ago. One of the key elements of the Chilean process that started with the return to democracy in 1990 was its ability to negotiate a tax reform as one of its first steps. The newly installed government was able to convince the elites (businesses and high-income earners who would pay about two-thirds of the new tax burden) that, in the midst of uncertainty, higher taxation was a small price to pay for the return to socioeconomic peace. The combination of tax reform and explicit social policy objectives made this a step toward building a better social contract, and the reform was approved by Congress six weeks after the new *Concertación* government started (for more details, see Boylan, 1996). Chile also recently reformed its pension system, and has recognized that coverage remains excessively low: it is therefore proposing a package of reforms aimed at achieving universal coverage in a way that is fiscally sustainable, and that would be an incentive compatible with keeping individual savings as the mainstay of the system. Income inequality, however, is still extremely high, and, symptomatically, also remains high in the policy agenda.

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APPENDIX

Table 1: Data Sources.

Country	Year	Transfers	Taxes
Argentina	1997	Ministerio de Economia (2002)	Gomez Sabaini, J.C., J.J. Santieri, and D.A. Rossignolo (2002)
Bolivia	2004	Own Calculations	Own Calculations
Colombia	2003	F. Lasso (2004)	Avila Mahecha, J., and A. Cruz Lasso (2006)
Honduras	2004	World Bank (2006a)	Gomez Sabaini, J.C. (2003a)
Mexico	2002	Secretaria de Hacienda y Crédito Público (2004)	Secretaria de Hacienda y Crédito Público (2004)
Nicaragua	2001	Own Calculations	Gomez Sabaini, J.C. (2003b)
Peru	2004	Own Calculations	Own Calculations
United Kingdom	2003-2004	Jones, F., M. Lloyd, and N. Wallis (2004)	Jones, F., M. Lloyd, and N. Wallis (2004)
United States	2000	Wolff, E., and A. Zacharias (2004)	Wolff, E., and A. Zacharias (2004)

Table 2: Social spending and taxation per income quintile as a percentage of GDP per capita.

		I	II	III	IV	V			I	II	III	IV	V
Argentina	Income Tax	-0.22%	-0.40%	-0.68%	-1.57%	-11.37%	Bolivia	Income Tax	0.00%	-0.01%	-0.02%	-0.06%	-1.11%
Argentina	Vat/Sales Tax	-2.31%	-4.15%	-6.58%	-11.04%	-32.76%	Bolivia	Vat/Sales Tax	-1.75%	-2.65%	-4.42%	-7.65%	-31.50%
Argentina	Other Taxes	-1.20%	-2.20%	-3.56%	-6.02%	-18.03%	Bolivia	Other Taxes	-0.20%	-0.43%	-0.53%	-0.81%	-4.06%
Argentina	Contributions To Social Security	0.00%	0.00%	0.00%	0.00%	0.00%	Bolivia	Contributions To Social Security	0.00%	0.00%	0.00%	0.00%	0.00%
Argentina	Education	4.58%	4.29%	4.43%	4.34%	3.86%	Bolivia	Education	5.72%	6.39%	6.36%	6.27%	6.35%
Argentina	Health	3.84%	3.65%	4.37%	5.25%	5.36%	Bolivia	Health	2.68%	2.89%	3.00%	3.06%	3.00%
Argentina	Cash Transfers	0.00%	0.00%	0.00%	0.00%	0.00%	Bolivia	Cash Transfers	0.34%	0.92%	0.93%	1.11%	1.25%
Argentina	Other Social Spending	4.30%	3.47%	2.98%	3.08%	2.72%	Bolivia	Other Social Spending	1.72%	1.99%	2.15%	2.38%	2.99%
Argentina	Pensions	0.00%	0.00%	0.00%	0.00%	0.00%	Bolivia	Pensions	0.01%	0.42%	0.69%	1.92%	11.75%
		I	II	III	IV	V			I	II	III	IV	V
Colombia	Income Tax	-0.02%	-0.04%	-0.44%	-2.01%	-24.51%	Honduras	Income Tax	-0.32%	-0.85%	-1.56%	-3.13%	-11.84%
Colombia	Vat/Sales Tax	-1.70%	-2.82%	-4.05%	-6.42%	-15.54%	Honduras	Vat/Sales Tax	-1.85%	-4.26%	-6.99%	-11.86%	-29.89%
Colombia	Other Taxes	-0.13%	-0.37%	-0.90%	-1.94%	-6.07%	Honduras	Other Taxes	-0.54%	-1.29%	-2.24%	-3.85%	-10.45%
Colombia	Contributions To Social Security	0.00%	0.00%	0.00%	0.00%	0.00%	Honduras	Contributions To Social Security	0.00%	0.00%	0.00%	0.00%	0.00%
Colombia	Education	4.07%	3.83%	3.33%	3.16%	2.42%	Honduras	Education	4.92%	5.82%	6.31%	7.81%	10.80%
Colombia	Health	3.59%	3.71%	3.81%	4.53%	4.45%	Honduras	Health	1.89%	2.57%	3.05%	3.09%	3.03%
Colombia	Cash Transfers	0.01%	0.14%	0.18%	0.30%	0.34%	Honduras	Cash Transfers	0.79%	0.44%	0.26%	0.12%	0.12%
Colombia	Other Social Spending	1.64%	1.62%	1.62%	1.70%	1.40%	Honduras	Other Social Spending	1.86%	1.70%	1.74%	2.18%	2.74%
Colombia	Pensions	0.05%	0.34%	0.82%	2.25%	13.58%	Honduras	Pensions	0.00%	0.00%	0.00%	0.00%	0.00%
		I	II	III	IV	V			I	II	III	IV	V
Mexico	Income Tax	-0.33%	-0.44%	-1.26%	-1.70%	-21.72%	Nicaragua	Income Tax	-0.22%	-0.49%	-0.96%	-1.92%	-11.21%
Mexico	Vat/Sales Tax	-0.46%	-1.43%	-2.70%	-5.55%	-18.55%	Nicaragua	Vat/Sales Tax	-4.15%	-6.24%	-9.09%	-12.49%	-29.24%
Mexico	Other Taxes	-0.18%	-0.41%	-0.67%	-1.07%	-2.89%	Nicaragua	Other Taxes	-0.53%	-0.90%	-1.45%	-2.31%	-7.22%
Mexico	Contributions To Social Security	-0.03%	-0.14%	-0.33%	-0.86%	-4.69%	Nicaragua	Contributions To Social Security	0.00%	0.00%	0.00%	0.00%	0.00%
Mexico	Education	4.49%	4.80%	4.52%	5.47%	4.52%	Nicaragua	Education	4.27%	4.49%	4.89%	5.16%	5.48%
Mexico	Health	1.87%	2.26%	2.67%	2.85%	2.80%	Nicaragua	Health	4.04%	3.52%	3.72%	3.18%	2.07%
Mexico	Cash Transfers	1.07%	0.47%	0.25%	0.25%	0.17%	Nicaragua	Cash Transfers	0.00%	0.00%	0.00%	0.00%	0.00%
Mexico	Other Social Spending	0.24%	0.40%	0.63%	0.75%	0.95%	Nicaragua	Other Social Spending	2.00%	2.10%	2.54%	2.07%	2.00%
Mexico	Pensions	0.14%	0.60%	0.89%	1.46%	2.22%	Nicaragua	Pensions	0.00%	0.00%	0.00%	0.00%	0.00%
		I	II	III	IV	V			I	II	III	IV	V
Peru	Income Tax	-0.01%	-0.04%	-0.11%	-0.31%	-22.73%	UK	Income Tax	-1.81%	-3.45%	-6.55%	-11.34%	-28.17%
Peru	Vat/Sales Tax	-2.64%	-4.57%	-6.98%	-10.25%	-25.58%	UK	Vat/Sales Tax	-4.05%	-4.90%	-6.08%	-7.26%	-10.27%
Peru	Other Taxes	-0.40%	-0.90%	-1.48%	-2.77%	-9.76%	UK	Other Taxes	-1.54%	-1.73%	-2.06%	-2.48%	-3.69%
Peru	Contributions To Social Security	0.00%	0.00%	0.00%	0.00%	0.00%	UK	Contributions To Social Security	-0.91%	-1.70%	-3.03%	-4.74%	-7.86%
Peru	Education	3.23%	3.24%	3.02%	2.69%	2.12%	UK	Education	5.15%	4.01%	3.78%	3.09%	2.26%
Peru	Health	1.81%	2.23%	3.16%	3.47%	3.87%	UK	Health	7.37%	7.10%	6.01%	5.24%	4.70%
Peru	Cash Transfers	0.00%	0.00%	0.00%	0.00%	0.00%	UK	Cash Transfers	6.69%	6.35%	3.89%	2.13%	1.20%
Peru	Other Social Spending	0.69%	0.55%	0.39%	0.24%	0.09%	UK	Other Social Spending	0.53%	0.41%	0.28%	0.25%	0.31%
Peru	Pensions	0.00%	0.00%	0.00%	0.00%	0.00%	UK	Pensions	5.20%	5.74%	4.09%	2.72%	1.61%
		I	II	III	IV	V			I	II	III	IV	V
USA	Income Tax	-0.82%	-2.69%	-5.70%	-11.37%	-36.05%							
USA	Vat/Sales Tax	-0.80%	-1.38%	-1.71%	-2.01%	-2.47%							
USA	Other Taxes	-0.68%	-1.21%	-1.92%	-2.88%	-4.13%							
USA	Contributions To Social Security	-1.04%	-2.71%	-4.55%	-6.93%	-10.60%							
USA	Education	3.11%	4.44%	5.14%	5.54%	5.26%							
USA	Health	4.59%	5.46%	4.73%	3.99%	3.55%							
USA	Cash Transfers	0.93%	0.82%	0.52%	0.32%	0.18%							
USA	Other Social Spending	1.73%	2.00%	1.60%	1.09%	0.72%							
USA	Pensions	4.02%	4.33%	3.80%	3.22%	3.78%							